EIA 859 HANDBOOK HIGHLIGHTS

38th Annual Engineering & Technical Management Conference

September 13-17, 2004

Biloxi, MS
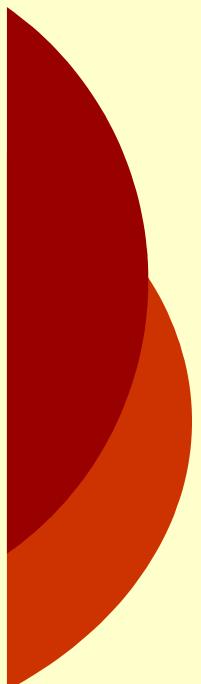
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- **We Have EIA 859 – So Why Have A Handbook?**

  - **Users Guide For Implementing Data Management (DM), Regardless Of Project Size, Complexity, Customer, Or Business Objective**

  - **Discusses Best Practices, Consistent With EIA 859, That Can Be Used A Guides To Successful DM Implementation**

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- **Activity Started January 2004**
  - **Rough draft complete and Red Team review**
  - **Consistent with Five Year Outlook**
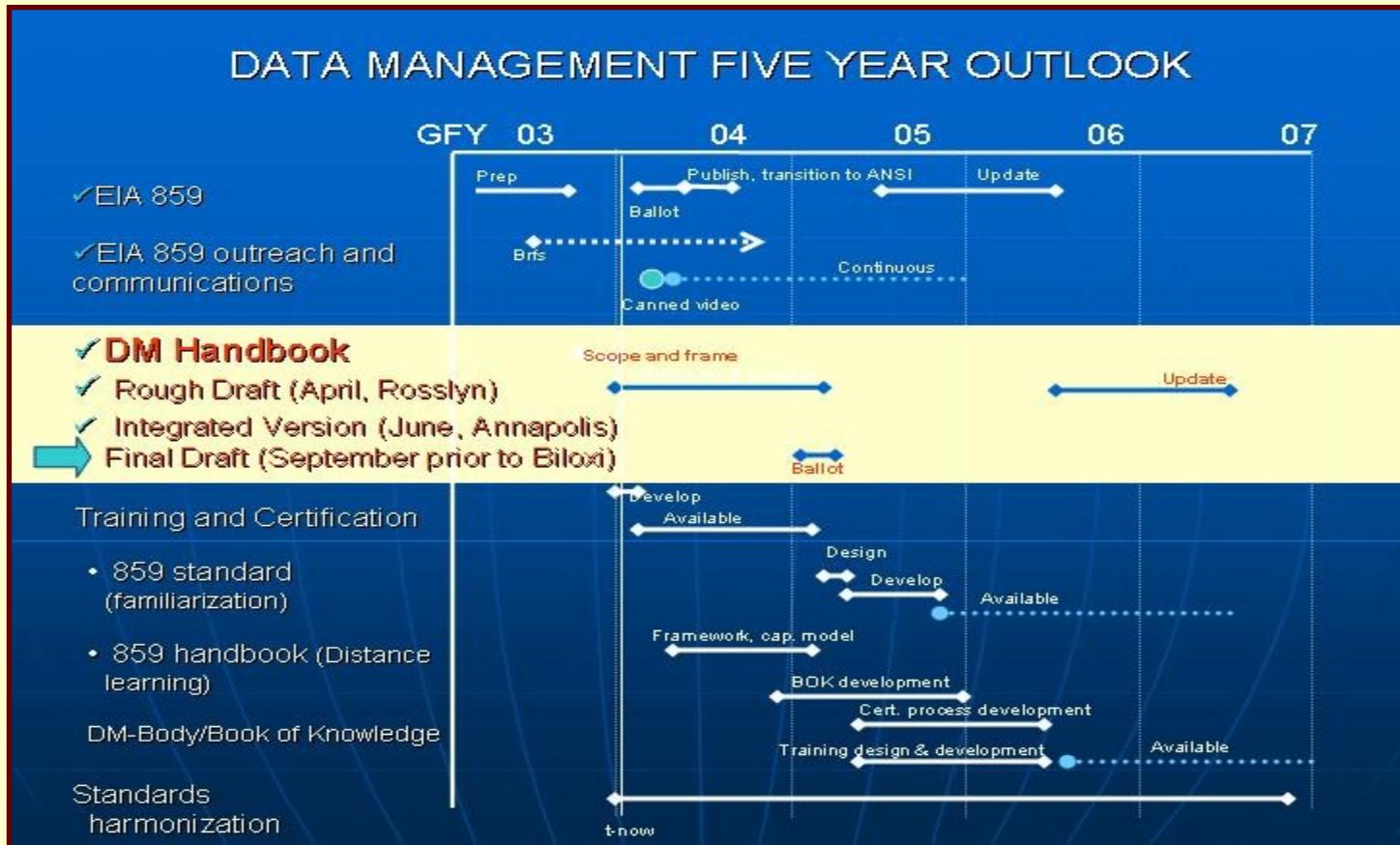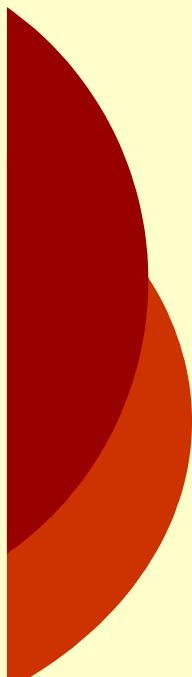
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- **How Did We Accomplish This In Less Than 9 Months?**

- **Lots Of Hard Work**

- **Frequent Communications**
  - **Weekly Telecoms**

- **Dedicated DM Professionals**
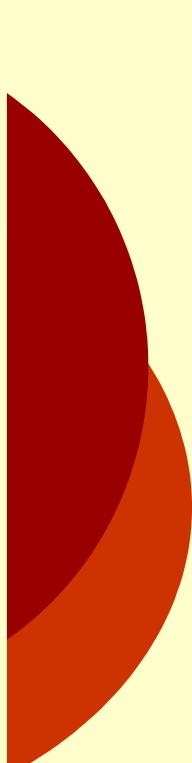
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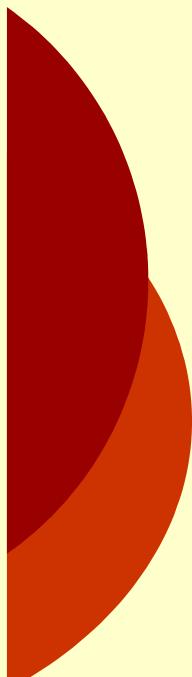
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Principle 1: <u>Define The Enterprise Relevant Scope Of DM</u>

- **Business Environment Has Changed Radically**
  - **Complex Partnering Relationships**
  - **Sophisticated Electronic Systems**
  - **Customer Expectations → Commercial Environment**
- **Develop A DM Strategy And Architecture**
  - **Maximize Flexibility In Data Delivery And Distribution**
  - **Design Processes That Accommodate Change**
- **Three Steps:**
  - **Establish A DM Process And Infrastructure Design**
  - **Execute The DM Solution And Process**
  - **Maintain The DM Process And Infrastructure**
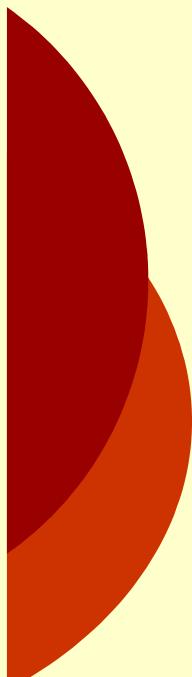
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Principle 2: <u>Plan For, Acquire, And Provide Data Responsive To Customer Requirements</u>

- **Establish General Requirements For Data**
  - **Organizational Requirements**
  - **Formats**
  - **Storage/Delivery Tools**
- **Determine Specific Data Requirements**
  - **Consider Project Lifecycle, Users, Functional Area For Data Generation, And Distribution**
  - **Data "Shopping List"**
- **Risk Analysis**
  - **Data Loss**
  - **Retrieval**
  - **Data Obsolescence**
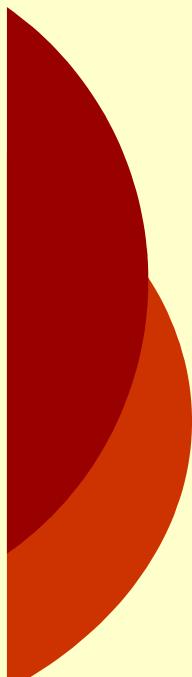
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Principle 3: <u>Develop DM Processes To Fit The Business Environment</u>

- **Data Requirements Are A Process Driver**
- **Determine The DM Solution**
  - **Prioritization And Trade-offs**
  - **Develop Alternative Solutions**
  - **Select Best Solution And Compare To Existing Enterprise Capability (Infrastructure & Processes)**
- **Adjust Processes**
  - **Gap Analysis – What You Need And What You Have**
  - **Fill In The Gaps And Implement**
- **Monitor Implementation And Make Corrections**
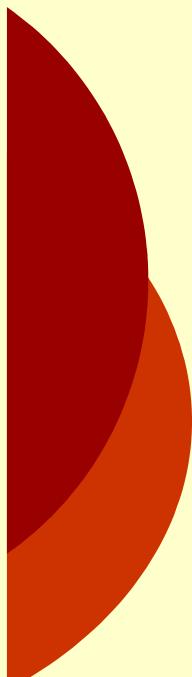
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Principle 4: <u>Identify Data Products And Views   So That Their Requirements And Attributes Can Be Controlled</u>

- **Data Product Identification Enables The Control Of Requirements And Attributes**
  - **Start With Identification Of Requirements, Users, And Maintainers To Determine Attribute Types**
- **Develop Consistent Methods For Describing Data**
  - **Needed For Effective Communication**
  - **Coordinate Development Of Attributes Among Users**
- **Establish Relevant Attributes To Define Data**
  - **Metadata – Data About Data**
  - **Data Dictionaries Of Common Attributes**
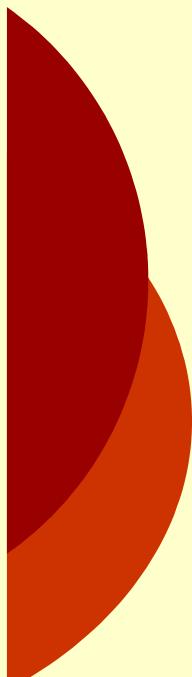
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Principle 5: <u>Control Data Assets Using Approved Change Control Processes</u>

- **Why Data Is Controlled**
  - **Data Is A Valuable Asset**
  - **Costs $$$S To Generate, Manage, And Deliver**
- **What Data Is Controlled**
  - **CM → Product Data**
  - **DM → All The Rest**
- **Levels Of Control**
  - **Formal Change Control (Using CM Principles)**
  - **Revision Control**
  - **Custody Control**
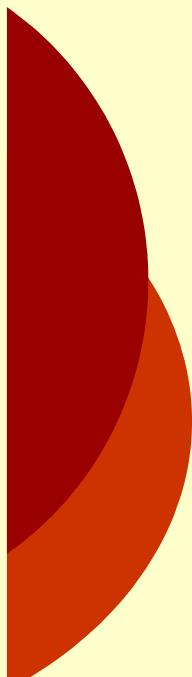
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Principle 6: <u>Identification Of Intellectual Property Data</u>

- **Intellectual Property – Creations Of The Mind That Are Given Legal Rights Often Associated With Real Or Personal Property.**

- **Intellectual Property → Proprietary And Competition-Sensitive Data, And Patents**

- **Protects Ownership And The Right To Use The Idea And Sell It In The Marketplace For Profit.**
  - **Protection Of Intellectual Property Data**
  - **Sharing/Granting Access To Intellectual Property Data**
  - **Marketing Intellectual Property**
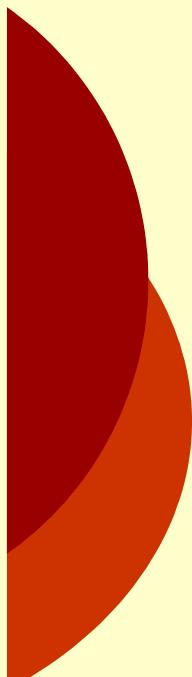
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Principle 7: Data Is Retained Commensurate With Its Potential Value To The Organization/Customer

- **Create An Organizational Behavior That Will Ensure Data Is Retained**
  - **Plan To Ensure That Data Is Available When Later Needed**
  - **Maintain Data Assets And An Index Of Enterprise Of Data Assets**
    - **Storage Formats – Paper, Portable Storage, Local Hard Drive, File Server, Web Server**
  - **Assess The Current And Future Value Of The Enterprise's Data Holdings**
  - **Disposition**
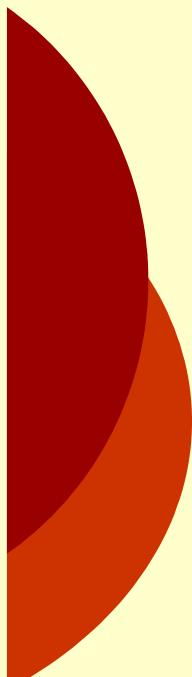
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Principle 8: <u>Continuously Improve Data Management</u>

- **Establish And Maintain A Metric Process And Reporting Strategy**
- **Develop And Implement A Process Improvement Plan**
- **Identify Areas In Need Of Improvement**
  - **Self Assessment And Peer Reviews**
  - **Lessons Learned And Best Practices**
- **Develop And Maintain Infrastructure To Support Process**
  - **Tools**
  - **Training**
  - **Feedback Loop Established**
  - **Don't Shoot The Messenger**
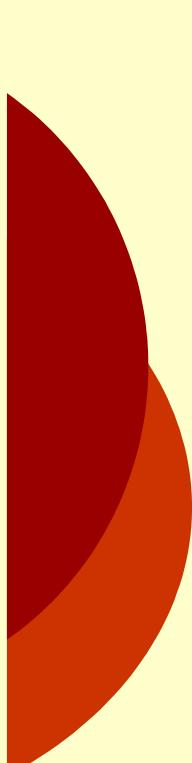
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Principle 9: <u>Effectively Integrate Data Management And Knowledge Management</u>

- **DM Is An Integral Part Of KM**

DATA → INFORMATION → KNOWLEDGE

- **Information**
  - **Data Becomes Information When It Is Organized And Understood**
- **Knowledge**
  - **Information Becomes Knowledge When It Is Put Into Context**
- **Knowledge Management Is The Processes Surrounding The Creation, Capturing, Organizing And Sharing Of Knowledge.**
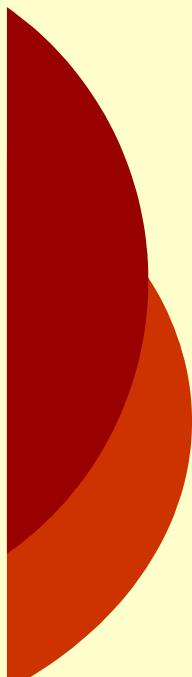
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Complete by December 2004